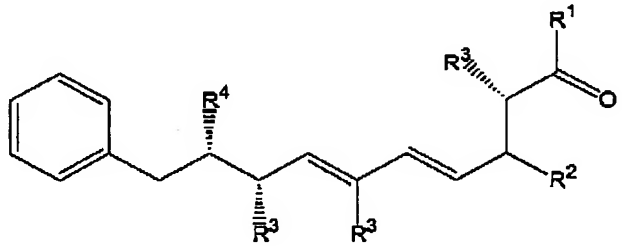
Application No. 10/070,302
Filed: May 1, 2002
TC Art Unit: 1641
Confirmation No.: 2837

AMENDMENT TO THE CLAIMS

1. (Currently Amended) A compound comprising one or more polypeptides providing a binding site of a monoclonal, polyclonal or recombinant antibody or a functionally active derivative or part thereof ~~for a group~~capable of specifically binding to a compound represented by the following formula (I)



(I)

which is part of a toxin derived from a cyanobacterium, wherein group R^1 represents a halogen atom, $-OSO_3$, -OR' or $-NR'_2$ and group R^2 represents hydrogen, (C_1-C_4)alkyl, (C_1-C_4)alkoxy, (C_1-C_4)acyl, ~~(C_1-C_4)aminoacyl~~ (C_1-C_4)acylamino ~~or~~ (C_1-C_4)carboxyaminoacyl, glutamidyl, or 2-aminoproprionamidly,

or the groups R^1 and R^2 are connected to each other to form a cyclic moiety,

the groups R^3 which may be the same or different are each independently selected from the group consisting of hydrogen and (C_1-C_4)alkyl,

group R^4 represents (C_1-C_4)alkoxy,

~~and wherein~~ the phenyl group may be substituted or unsubstituted, and wherein the groups R' represent

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independently from each other hydrogen, substituted or unsubstituted (C_1-C_4)alkyl or (C_1-C_4)acyl, when bound to nitrogen.

2. (Cancelled)

3. (Previously Presented) The compound according to claim 1, wherein the groups R^3 each represent methyl and group R^4 represents methoxy.

4. (Currently Amended) The compound according to claim 1, wherein group R^1 represents ~~aminoacyl~~ acylamino and group R^2 represents (C_1-C_4)acyl.

5. (Previously Presented) The compound according to claim 4, wherein group R^1 represents glycyl or D-alanyl and group R^2 represents acetyl.

6. (Previously Presented) The compound according to claim 1, wherein group R^1 represents $-NH_2$ and group R^2 represents glutamidyl or 2-aminopropionamidyl.

7. (Previously Presented) The compound according to claim 1, wherein the toxin is selected from the group consisting of mycrocystin and nodularin congeners.

8. (Previously Presented) The compound according to claim 1 which is a polyclonal, monoclonal or recombinant antibody or a functionally active derivative or fragment thereof.

9. (Currently Amended) A method for the preparation of the compound according to claim 1, said method comprising the steps of:

(a) preparing a compound containing a group represented by formula (I) as defined in claim 1~~7~~;

(b) coupling the compound of step (a) to a carrier;

(c) immunizing an animal with the conjugate obtained in step (b); and

(d) isolating the animal's blood, blood serum and/or spleenocytes.

10. (Previously Presented) The method according to claim 9, wherein the carrier is a polymeric substance.

11. (Previously Presented) The method according to claim 10, wherein the polymeric carrier is selected from the group consisting of polyethyleneglycol, polypeptides, proteins, polysaccharides or plastic supports.

12. (Previously Presented) The method according to claim 11, wherein the protein carrier is selected from bovine serum albumin, ovalbumin, cationised bovine serum albumin or horseradish peroxidase.

13. (Cancelled)

14. (Previously Presented) A diagnostic kit containing the compound according to claim 1.

15. (Previously Presented) An affinity matrix containing the compound according to claim 1 coupled to a polymeric resin.

16. (Currently Amended) A method for detecting ~~Use of the compound according to claim 1 for the detection of~~ a compound containing the group represented by the formula (I), said method comprising the steps of:

(a) providing a compound according to claim 1;

(b) mixing a second compound with the compound according to claim 1 to form a reaction mixture; and

(c) performing an assay that detects binding of the compound according to claim 1 to the second compound.

17. (Previously Presented) A method for concentrating a compound containing the group represented by the formula (I) from a fluid or for substantially decreasing the amount of a compound containing the group represented by the formula (I) in a fluid comprising the steps of

(a) preparing the compound according to claim 1,

(b) coupling the compound obtained in step (a) to a polymeric matrix, and

(c) contacting the fluid with the polymeric matrix obtained in step (b).

18. (Previously Presented) The method according to claim 17, wherein the fluid is hemodialysis water, drinking water or water derived from rivers, lakes and oceans.

19. (Currently Amended) The compound according to claim ~~21~~, wherein:

the groups R^3 each represent methyl and group R^4 represents methoxy~~;~~ and

group R^1 represents ~~aminoacyl~~ acylamino and group R^2 represents (C_1-C_4)acyl or ~~;~~

group R^1 represents glycyl or D-alanyl and group R^2 represents acetyl or~~;~~

group R^1 represents $-NH_2$ and group R^2 represents glutamidyl or 2-aminopropionamidyl~~;~~, and

wherein the toxin is selected from the group consisting of mycrocystin and nodularin congeners.

20. (Previously Presented) The compound according to claim 19 which is a polyclonal, monoclonal or recombinant antibody or a functionally active derivative or fragment thereof.

21. (Previously Presented) A method for the preparation of the compound according to claim 19 comprising the steps of

(a) preparing a compound containing a group represented by formula (I) as defined in claim 19,

(b) coupling the compound of step (a) to a carrier;

and wherein:

the carrier is a polymeric substance;

the polymeric carrier is selected from the group consisting of polyethyleneglycol, polypeptides, proteins, polysaccharides or plastic supports;

the protein carrier is selected from bovine serum albumin, ovalbumin, cationised bovine serum albumin or horseradish peroxidase.

22. (Previously Presented) A method for the preparation of the compound according to claim 20 comprising the steps of

(a) preparing a compound containing a group represented by formula (I) as defined in claim 19,

(b) coupling the compound of step (a) to a carrier;

and wherein:

the carrier is a polymeric substance;

the polymeric carrier is selected from the group consisting of polyethyleneglycol, polypeptides, proteins, polysaccharides or plastic supports;

the protein carrier is selected from bovine serum albumin, ovalbumin, cationised bovine serum albumin or horseradish peroxidase.

23. (Previously Presented) The method according to claim 21 which further comprises the steps of

(c) immunizing an animal with the conjugate obtained in step (b), and

(d) isolating the animal's blood, blood serum and/or spleenocytes.

24. (Previously Presented) The method according to claim 22 which further comprises the steps of

(c) immunizing an animal with the conjugate obtained in step (b), and

(d) isolating the animal's blood, blood serum and/or spleenocytes.

25. (Previously Presented) A diagnostic kit containing the compound according to claim 19.

26. (Previously Presented) An affinity matrix containing the compound according to claim 19 coupled to a polymeric resin.

27. (Currently Amended) A method for detecting ~~Use of the compound according to claim 19 for the detection of~~ a compound containing the group represented by the formula (I), said method comprising the steps of:

(a) providing a compound according to claim 19;

(b) mixing a second compound with the compound according to claim 19 to form a reaction mixture; and

(c) performing an assay that detects binding of the compound according to claim 19 to the second compound.

28. (Previously Presented) A method for concentrating a compound containing the group represented by the formula (I) from a fluid or for substantially decreasing the amount of a compound containing the group represented by the formula (I) in a fluid comprising the steps of

(a) preparing the compound according to claim 19,

(b) coupling the compound obtained in step (a) to a polymeric matrix, and

(c) contacting the fluid with the polymeric matrix obtained in step (b);

and wherein the fluid is hemodialysis water, drinking water or water derived from rivers, lakes and oceans.